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Hoen et al.

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(54) **COMPUTER SYSTEMS WITH WEARABLE
FORCE SENSING DEVICES**

(56) **References Cited**

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See application file for complete search history.

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(57) **ABSTRACT**

A system may include a wearable electronic device that gathers force input. The device may transmit force measurement information and other input to external equipment such as a head-mounted device. The wearable electronic device may have a force sensor that gathers force measurements as the wearable electronic device is being worn. The force sensor may have a force sensor housing structure configured to form a fluid-filled channel and one or more collapsible force sensor elements such as collapsible fluid-filled domes or other protruding portions of the force sensor housing structure. A pressure sensor may monitor changes in pressure in a fluid that fills the channel and the fluid-filled domes. The monitored changes in pressure represent force measurements for force applied by a user's body part or other objects on the collapsible force sensor elements.

24 Claims, 12 Drawing Sheets

